

NATIONAL KARST MAP PROJECT

Federal and State agencies, the speleological community, and academia have repeatedly expressed the need for an accurate and detailed national karst map to better understand the distribution of soluble rocks in the United States. Maps at a variety of scales are needed to educate the public and legislators about karst issues, to provide a basis for cave and karst research, and to aid Federal, State, and local land-use managers in managing karst resources.

During the past two years, a diverse group of karst experts strategized a long-term plan for karst mapping on a national scale. The resultant goal is for the US Geological Survey (USGS) to produce a national karst map in digital form, derived primarily for maps prepared by the individual States, and to link that map on a web-based network to State and local scale maps and related data. The newly formed National Cave and Karst Research Institute (NCKRI; Louise Hose, Director; 505-234-5561, fax 505-234-3051; lhose@cemrc.org) will establish a web-based network of karst information that will be used to build the national map.



The National Karst map, which builds upon the "Engineering Aspects of Karst" map by WE Davies and others (1984, scale 1:7,500,000) published in the National Atlas, will be prepared digitally and can be printed at a scale of 1:7,500,000 for educational purposes and 1:2,500,000 for a more detailed view of karst distribution. A digital copy of the map will reside on the NCKRI web site and be linked to individual states and speleological organizations for state karst maps, detailed information, annotated bibliographies, and outreach products. The USGS will facilitate compilation of the national map by cooperating with State geological surveys to update or produce state karst maps and to establish

standards and consistent digital products, and will facilitate the digital compilation and production of the national karst map. Methods of presentation of data in karst maps vary considerably and boundaries of karst between some adjacent states do not match. Some states have a digitized geologic map from which a karst map could be prepared. Outlines of known karst areas, caves and sinkholes, depth of burial of karstic rocks, and areas of "pseudokarst" of several types are among the types of data shown on some maps. The national map will consider the distribution of carbonate and evaporite units, intrastratal karst, karst beneath surficial overburden, and percentage of area covered by karst.

SUPPORT: USGS has initiated programmatic funding for the national karst map, and the ongoing National Cooperative Geologic Mapping Program has long supported mapping in individual states. State geological surveys have provided in-kind match in the National Cooperative Geologic Mapping Program, and some of the resultant mapping has focused on karst. NCKRI is providing program coordination, serving the web network, and funding to supplement the USGS mapping program and states that need additional funding to complete mapping or to convert maps to digital form.



The leader for the national karst map project is David Weary (703)-648-6897 dweary@usgs.gov. Weary has and will be contacting individual State Surveys as this effort progresses.